

IN THE CLAIMS

Please amend the claims as follows:

1 to 18. (canceled).

19. (previously presented) A process for producing a rotationally symmetrical quartz glass crucible, said process comprising:

creating an electric arc by means of an electrode arrangement comprising one or several anodes and a cathode so as to heat a wall section of the quartz glass crucible as said quartz glass crucible is rotated about a rotational axis at a rate of rotation;

creating an additional electric arc heating an additional wall section of the quartz glass crucible by means of at least one additional electrode arrangement comprising one or more anodes and a cathode; and

wherein the electrode arrangements and respective heating zones thereof are spaced from each other in relation to a periphery of the quartz glass crucible; and

said electric arcs being created so as to reduce temperature differentials in the wall sections as the crucible is rotated relative to temperature differentials in a process employing a single electrode arrangement.

20. (previously presented) A process according to Claim 19, wherein the wall sections heated by the electrode arrangements are located at a distance from one another in a direction of the rotational axis of the quartz glass crucible.

21. (canceled)

22. (previously presented) A process according to Claim 19, wherein the electrode arrangements are located in different positions at a distance from one another in a direction of the rotational axis of the quartz glass crucible.

23. (previously presented) A process according to Claim 19, wherein the electrode arrangements are displaceable independently from one another.

24. (previously presented) A process according to Claim 22, wherein the electrode arrangements are displaceable independently from one another.

25. (previously presented) A process according to Claim 19, wherein the electrode arrangements are evenly spaced in relation to the periphery of the quartz glass crucible.

26. (previously presented) A process according to Claim 22, wherein the electrode arrangements are evenly spaced in relation to the periphery of the quartz glass crucible.

27. (previously presented) A process according to Claim 23, wherein the electrode arrangements are evenly spaced in relation to the periphery of the quartz glass crucible.

28. (previously presented) A process according to Claim 24, wherein the electrode arrangements are evenly spaced in relation to the periphery of the quartz glass crucible.

29. (previously presented) A process according to Claim 19 wherein at least one of the electrode arrangements is provided with a supply apparatus and supplies SiO₂ granulate, and at least one of the electrode arrangements provides exclusively heating.

30. (previously presented) A process according to Claim 22 wherein at least one of the electrode arrangements is provided with a supply apparatus and supplies SiO₂ granulate, and at least one of the electrode arrangements provides exclusively heating.

31. (previously presented) A process according to Claim 23 wherein at least one of the electrode arrangements is provided with a supply apparatus and supplies SiO₂ granulate, and at least one of the electrode arrangements provides exclusively heating.

32. (canceled)

33. (canceled)

34. (canceled)

35. (canceled)

36. (canceled)

37. (previously presented) A process according to Claim 19 wherein the additional electrode arrangement is inclined toward a section of the quartz glass crucible opposite the first electrode arrangement.

38. (currently amended) A process for producing a rotationally symmetrical quartz glass crucible, said process comprising:

creating electric arcs by means of a plurality of electrode arrangements each comprising a cathode and one or more anodes, and each heating in a respective heating zone

a wall of the quartz glass crucible while said quartz glass crucible is rotated about a rotational axis thereof; and

the heating zones of the electrode arrangements being spaced from each other in relation to a periphery of the quartz glass crucible; and

~~[the heating zones of]~~ the electrode arrangements being evenly distributed about the periphery of the quartz glass crucible.

39. (previously presented) A process according to Claim 38, wherein the electrode arrangements are located in different positions at a distance from one another in a direction of the rotational axis of the quartz glass crucible.

40. (previously presented) A process according to Claim 38, wherein the electrode arrangements are displaceable independently of each other.

41. (canceled)

42. (previously presented) A process according to Claim 38 wherein at least one of the plurality of electrode arrangements has a supply apparatus and supplies SiO₂ granulate in addition to heating the wall of the quartz glass crucible, and at least one of the plurality of electrode arrangements does not supply granulate but provides only heating of the wall of the crucible.

43. (canceled)

44. (canceled)

45. (previously presented) The process according to claim 19, wherein the heating of each electrode arrangement is applied for a duration and the duration is dependent upon the rate of rotation of the quartz glass crucible.

46. (previously presented) The process according to claim 38, wherein the heating of each electrode arrangement is applied for a duration and the duration is dependent upon a rate of rotation of the quartz glass crucible.

47. (currently amended) A process for producing a quartz glass crucible, said process comprising:

rotating the crucible about a rotational axis at a rate of rotation;

supplying SiO₂ particulate material into the crucible while it is being rotated;

creating electric arcs using a plurality of electrode arrangements, wherein each electrode arrangement has a cathode and one or more anodes, each electrode arrangement heating a wall of the quartz glass crucible in a respective heating zone while said quartz glass crucible is rotated so as to heat the SiO₂ particulate material pressed against the wall by centrifugal force from the rotation so as to form a glass surface on said wall, ~~[the heating zones of]~~ the electrode arrangements being located ~~[such that the heating zones are]~~ evenly distributed rotatively about the periphery of the quartz glass crucible;

the electric arcs being created such that points on the wall are heated at least twice per revolution so as to reduce temperature differences therein.

48. (previously presented) The method of claim 47 wherein the heating of each electrode arrangement is applied for a duration and the duration is dependent upon a rate of rotation of the quartz glass crucible.